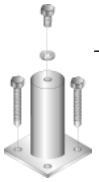
Standoffs and Flashings

Installation Manual 907

Thank you for purchasing a UniRac product. Please review these instructions completely before proceeding.

Standoffs: 3-, 4-, 6-, and 7-inch lengths in each type



	Part nos.	*Shaft O.D.*	*Use*	*Components*
Raised flange zinc-plated steel	310017 thru 24	$1\frac{5}{8}$″	Use only with SolarMount standard or HD rails. Secure to rafter with 2 lag screws at opposite corners, orienting the flange parallel to the rails.	• Welded standoff • 2 lags, $\frac{5}{16}$″ x $3\frac{1}{2}$″*
Flat top 1-piece zinc-plated steel	310009 thru 16	$1\frac{5}{8}$″	Use with SunFrame, SolarMount standard, or SolarMount HD rails. Secure to rafter with 2 lag screws at opposite corners. Secure L-foot or installer-supplied strut directly to standoff with standoff hardware.	• Welded standoff • Bolt, $\frac{3}{8}$″ x $1\frac{1}{4}$″ • Lock washer, $\frac{3}{8}$″ • 2 lags, $\frac{5}{16}$″ x $3\frac{1}{2}$″*
Flat top 2-piece aluminum	310027 thru 42	$1\frac{1}{8}$″	Use with SunFrame, SolarMount standard, or SolarMount HD rails. Secure to rafter with 2 lag screws. Secure L-foot or installer-supplied strut directly to standoff with standoff hardware. ***Especially convenient when installing over a tile roof because flashing can be precisely fitted over secured base prior to installation of shaft.***	• Shaft • Base assembly • Bolt, $\frac{3}{8}$″ x $1\frac{1}{4}$″ • Lock washer, $\frac{3}{8}$″ • 2 lags, $\frac{5}{16}$″ x $3\frac{1}{2}$″*

** A lag-bolt removal credit is available wherever an installer prefers to substitute a different lag bolt. The installer is solely responsible for determining whether lags are adequate to handle live and dead loads under wind conditions at the installation site. Wind loads and lag pullout capacities are addressed in Code-Compliant Planning and Assembly manuals for SolarMount (Installation Manual 214) and SunFrame (Installation Manual 801.1 or 802).*

Flashings for flat top 2-piece standoffs ($1\frac{1}{8}$″ O.D. shaft)

(see illustrations, p. 2)

	*Part no.**	*Dimensions*
Collared, galvanized	990109	8.75″ x 12.5″
All metal, aluminum	310044	9″ x 12″
All metal, solf aluminum	310045	18″ x 18″

**Packs of 12 flashings.*

Flashings for flat top 1-piece standoffs and raised-flange standoffs ($1\frac{5}{8}$″ O.D. shaft)

(see illustrations, p. 3)

	*Part no.**	*Dimensions*
Collared, galvanized	990101	8.75″ x 12.5″
Collared, aluminum	990102	8.75″ x 12.5″
Collared, soft aluminum	990103	18″ x 18″

**Packs of 12 flashings.*

The installer is solely responsible for:

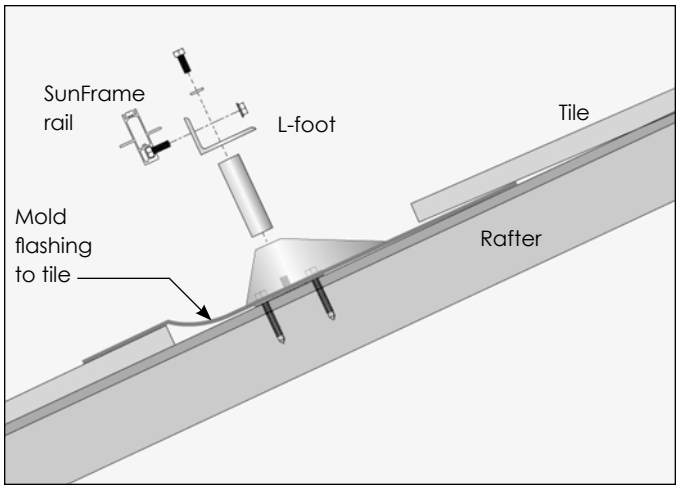
- **Complying with all applicable local or national building codes, including any that may supercede this manual;**
- **Ensuring that UniRac and other products are appropriate for the particular installation and the installation environment;**
- **Ensuring that the roof, its rafters, connections, and other structural support members can support the array under building live load conditions;**
- **Using only UniRac parts and installer-supplied parts as specified by UniRac (substitution of parts may void the warranty);**
- **Maintaining the waterproof integrity of the roof; and**
- **Ensuring safe installation of all electrical aspects of the PV array.**

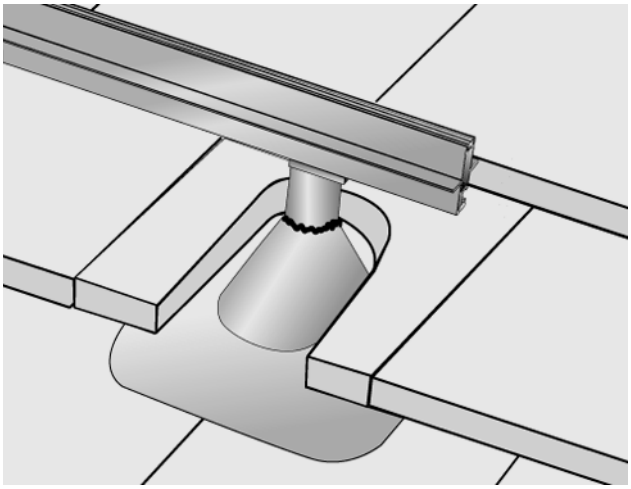
Planning and installation

There are many possible configurations of standoffs and flashing. The three examples here illustrate major product varieties and installation settings.

Example 1

2-piece, aluminum, flat top standoff
Soft aluminum flashing
Tile roof
SunFrame (shown) or SolarMount rail



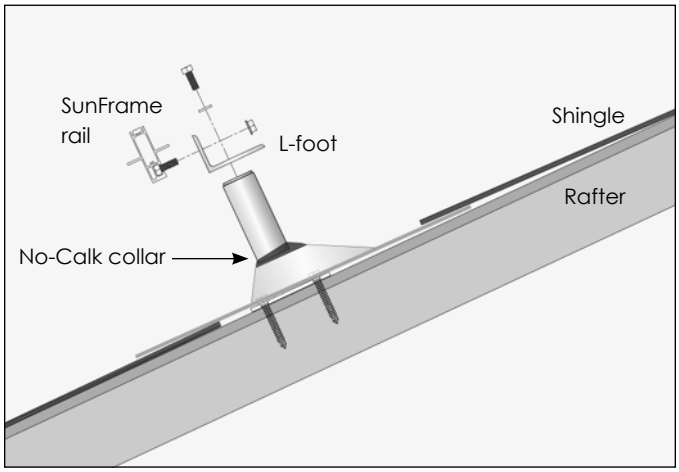


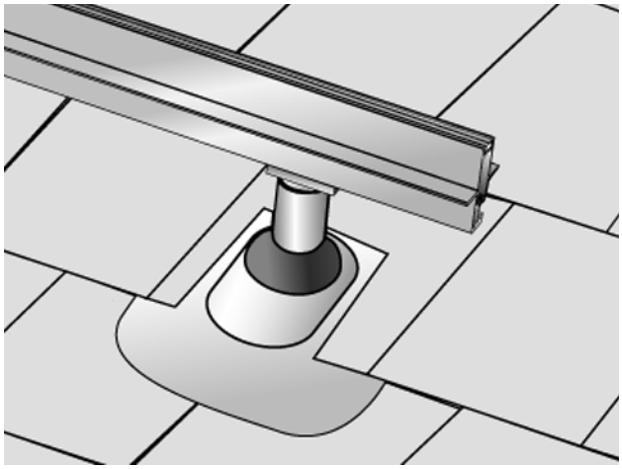
Remove a tile over a rafter. Install the base of a two-piece standoff, ensuring that both lag bolts are screwed into the rafter. Install soft aluminum flashing over the base, inserting it under the tile above and forming it to the shape of the tile. Insert standoff shaft through the opening in the flashing, screwing it down firmly in place onto the base. Seal with roofing cement or other appropriate compound.

Attach L-feet to standoffs. Slide L-foot mounting bolts along slot on SunFrame (or SolarMount) rail. Insert footing bolts through L-feet and fasten with flange nuts.

Example 2

1-piece, steel, flat top standoff
No-Calk™ flashing
Shingled roof
SunFrame (shown) or SolarMount rail



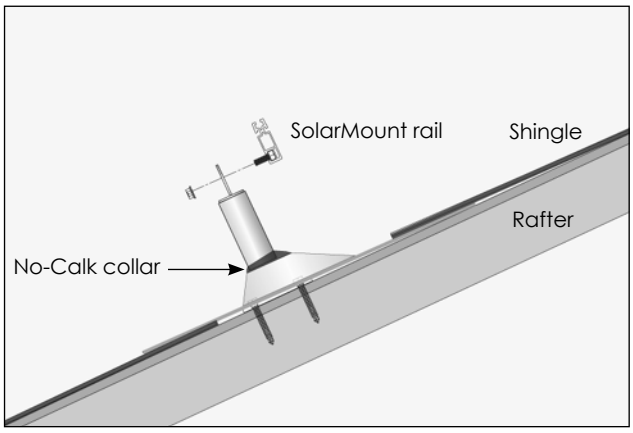


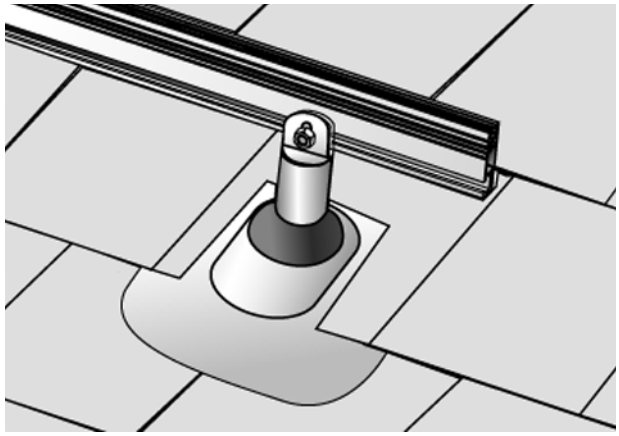
Cut an opening in the roofing material over a rafter to accommodate the flashing riser. Install the standoff, ensuring that both lag bolts are screwed into the rafter. Insert the flashing under the shingle above and over the shaft of the standoff. No-Calk collar does not require sealing of the flashing and standoff shaft.

Attach L–feet to standoffs. Slide L-foot mounting bolts along slot on SunFrame (or SolarMount) rail. Insert footing bolts through L-feet and fasten with flange nuts.

Example 3

1-piece, steel, raised-flange standoff
No-Calk™ flashing
Shingled roof
SolarMount rail





Cut an opening in the roofing material over a rafter to accommodate the flashing riser. Install the standoff, ensuring that (1) both lag bolts are screwed into the rafter, and (2) the raised flange is oriented parallel to the rail. Insert the flashing under the shingle above and over the shaft of the standoff. No-Calk™ collar does not require sealing of the flashing and standoff shaft.

Slide mounting bolts along slot on SolarMount rail. Insert footing bolts through raised flange on standoff and fasten with flange nuts.

10 year limited Product Warranty, 5 year limited Finish Warranty

UniRac, Inc., warrants to the original purchaser ("Purchaser") of product(s) that it manufactures ("Product") at the original installation site that the Product shall be free from defects in material and workmanship for a period of ten (10) years, except for the anodized finish, which finish shall be free from visible peeling, or cracking or chalking under normal atmospheric conditions for a period of five (5) years, from the earlier of 1) the date the installation of the Product is completed, or 2) 30 days after the purchase of the Product by the original Purchaser ("Finish Warranty").

The Finish Warranty does not apply to any foreign residue deposited on the finish. All installations in corrosive atmospheric conditions are excluded. The Finish Warranty is VOID if the practices specified by AAMA 609 & 610-02 – "Cleaning and Maintenance for Architecturally Finished Aluminum" (www.aamanet.org) are not followed by Purchaser. This Warranty does not cover damage to the Product that occurs during its shipment, storage, or installation.

This Warranty shall be VOID if installation of the Product is not performed in accordance with UniRac's written installation instructions, or if the Product has been modified, repaired, or reworked in a manner not previously authorized by UniRac IN WRITING, or if the Product is installed in an environment for which it was not designed. UniRac shall not be liable for consequential, contingent or incidental damages arising out of the use of the Product by Purchaser under any circumstances.

If within the specified Warranty periods the Product shall be reasonably proven to be defective, then UniRac shall repair or replace the defective Product, or any part thereof, in UniRac's sole discretion. Such repair or replacement shall completely satisfy and discharge all of UniRac's liability with respect to this limited Warranty. Under no circumstances shall UniRac be liable for special, indirect or consequential damages arising out of or related to use by Purchaser of the Product.

Manufacturers of related items, such as PV modules and flashings, may provide written warranties of their own. UniRac's limited Warranty covers only its Product, and not any related items.

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